FINAL

Scoping Report for the Oil and Gas Coalition Multi-State Habitat Conservation Plan Environmental Impact Statement

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Acronyms and Abbreviations

CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973, as amended
FR	Federal Register
HCP	Habitat Conservation Plan
ICF	ICF, consultant to the U.S. Fish and Wildlife Service
ITP	incidental take permit
NEPA	National Environmental Policy Act
NOI	Notice of Intent
O&G HCP	Oil and Gas Coalition Multi-State Habitat Conservation Plan
Service	U.S. Fish and Wildlife Service
USC	United States Code
WNS	white-nose syndrome

Chapter 1
Introduction

1.1 Proposed Action Overview

The U.S. Fish and Wildlife Service (Service) is preparing an Environmental Impact Statement (EIS) to evaluate the potential impacts associated with issuance of an incidental take permit (ITP) in compliance with the federal Endangered Species Act of 1973, as amended (ESA), for the proposed Oil and Gas Coalition Multi-State Habitat Conservation Plan (O&G HCP). The O&G HCP is being developed by a coalition of nine companies (collectively called "the companies") that individually conduct upstream and/or midstream oil and gas activities within a three-state Plan Area, which consists of the entirety of Ohio, Pennsylvania, and West Virginia. The coalition members are: Antero Resources Corporation; Ascent Resources, LLC; Chesapeake Energy Corporation; EnLink Midstream L.P.; EQT Corporation; MarkWest Energy Partners, L.P., MPLX L.P., and Marathon Petroleum Corporation (all part of the same corporate enterprise); Rice Energy, Inc.; Southwestern Energy Company; and The Williams Companies, Inc. The companies, which will be co-permittees, intend to seek ITP coverage because their respective oil and gas exploration, production, and maintenance activities have the potential to incidentally take species that are known to occur in the Plan Area.

The activities covered under the O&G HCP, referred to as Covered Activities, include midstream and upstream oil and gas exploration, production, maintenance, and decommissioning and reclamation activities that will occur in the Plan Area. The specific midstream and upstream oil and gas activities that are proposed for coverage in the O&G HCP include the following primary activities:

- Upstream (Well) Development Activities:
    - Development activities, including those associated with access roads, staging areas, and seismic operations, as well as geophysical exploration, which includes surveying/staking, land/tree clearing, explosives use, boring, and vehicle traffic.
    - Well field development activities, including those associated with production wells, well pads, drilling rigs, pump/well heads, reserve pits, storage tanks, fuel tanks, water tanks, electric equipment, drilling pipe storage, water wells, waterlines, surface water intakes, disposal wells, water impoundments, borrow pits, reserve pits, electric distribution lines, and communication towers.
    - Construction activities associated with well pads, ancillary features, and onsite components, including but not limited to surveying/staking; land/tree clearing; grading; stormwater and erosion and sediment control; wetland, stream, and sensitive area mitigation/protection; trenching/boring; surface water pumping; spoil/debris placement; vegetation pile placement, vehicle traffic, drilling/well pad development and completion activities; and office, control, utility, storage, and maintenance structure construction or placement incidental to specific projects.
    - Production and operations activities, including those related to access roads, production, gas flaring, vehicle traffic, post-construction stormwater management, maintenance of well pads and ancillary features and components (supporting

infrastructure installation, repair and replacement, equipment upgrades, inspections and repairs, workovers and recompletions, minor amounts of soil disturbance, vegetation maintenance, road maintenance, etc.).

- Decommissioning and reclamation activities, including those associated with vehicle traffic, land/tree clearing, land excavation/backfilling, vegetation restoration, and well plugging.

- Midstream (Pipeline) Development Activities
  - Construction of gathering, transmission, and distribution pipelines and associated activities, including but not limited to access road construction, staging area establishment, pipe storage/laydown area establishment, stream and water crossing construction, road boring, surveying/staking, land/tree clearing, stormwater and erosion and sediment control, grading, trenching/boring, stockpiling, pipeline assembly, trench backfilling, vehicle traffic, revegetation, and surface impact reclamation.
  - Construction of surface features, including but not limited to access roads, staging areas, and storage yards; booster, compressor, and pump stations and related facilities; meter stations; mainline valves; pig launcher/receiver facilities; regular facilities; facilities to process, refine, stabilize, and store natural gas and/or other hydrocarbons; communication towers; electric distribution lines; electric substations; capacitor stations; transformer stations; office/control/utility/storage/maintenance structures incidental to specific projects; parking areas; cathodic protection facilities; and storage tanks.
  - Operation and maintenance of pipeline and surface facilities and related activities, including but not limited to vehicle traffic, equipment upgrades, inspections and repairs/replacements, leak detection, pigging, painting, minor amounts of soil disturbance, vegetation maintenance to preserve the right of way, road maintenance, and odor reduction.
  - Installation of new culverts/ditches, gas flaring, blow downs, and hydrostatic testing and discharge.
  - Decommissioning and reclamation of pipeline and surface facilities and related activities, including but not limited to vehicle traffic, land excavation/backfilling, and vegetative restoration.

The companies have requested incidental take coverage for five bat species. The Covered Species are listed below.

- Indiana bat, *Myotis sodalis*, (endangered)
- Northern long-eared bat, *Myotis septentrionalis* (threatened)
- Little brown bat, *Myotis lucifugus*
- Eastern small footed bat, *Myotis leibii*
- Tri-colored bat, *Perimyotis subflavus*

The little brown bat, eastern small-footed bat, and tri-colored bat are included as Covered Species under the O&G HCP so that the species are addressed in the event that any or all are listed under the ESA within the term of the proposed permit.

The proposed term of the O&G HCP is 50 years. The companies have requested a permit term of 50 years for the following reasons: oil and gas infrastructure has a long production and economic life; the extensive oil and gas resources in the Plan Area are expected to be developed over the long term; preliminary information indicates that ongoing operations and maintenance and decommissioning may result in incidental take after facility construction; and facility construction schedules are responsive to dynamic market pressures.

The EIS will evaluate the environmental impacts resulting from the issuance of an ITP for the O&G HCP, as well as reasonable alternatives to the proposed action.

1.2 Purpose of the Proposed Action

The purpose of the federal action is to review and approve a request for an ITP for the O&G HCP which, if granted, would authorize the incidental take of Covered Species resulting from upstream and midstream oil and natural gas development within the Plan Area. The purpose of the ITP issuance is to comply with the ESA by providing protection and conservation of certain listed species while enabling the Coalition to conduct legally authorized activities associated with oil and gas development. The ITP would also require implementation of the HCP.

Section 9 of ESA (16 United States Code [USC] 1531 et seq.) and its implementing regulations prohibit the take of animal species listed as endangered or threatened. The term *take* is defined in the ESA as: "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct" (16 USC 1532(19)). *Harm* is further defined in the Service's regulations as "an act which actually kills or injures listed wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, and sheltering" (50 Code of Federal Regulations [CFR] 17.3).

Under Section 10(a) of ESA, the Service may issue permits to authorize incidental take of listed animal species. *Incidental take* is defined by the ESA as take that is "…incidental to, and not the purpose of, the carrying out of an otherwise lawful activity" (50 CFR 17.3). Section 10(a)(1)(B) of ESA contains provisions for issuing ITPs to non-federal entities for the take of endangered and threatened species, provided the applicant prepares a conservation plan (ESA Section 10(a)(2)(A)) and satisfies the issuance criteria provided in ESA Section 10(a)(2)(B), which require that:

- The taking will be incidental.
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.
- The applicant will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided.
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild.

- The applicant will ensure that other measures that the Service may require as being necessary or appropriate will be provided.
- The Service has received such other assurances as may be required that the HCP will be implemented.

1.3 NEPA Compliance

The National Environmental Policy Act (NEPA) states that any federal agency undertaking a "major federal action" likely to "significantly affect the quality of the human environment" must prepare an EIS (42 USC 4332(2)(C)). Significance is determined by evaluating the context and intensity of impacts, as defined in 40 CFR 1508.27. Based on these guidelines, the Service determined that issuance of an ITP under the proposed O&G HCP may have significant effects on the human environment and requires preparation of an EIS before a decision to issue federal permits is made.

The EIS will consider the impacts of the proposed action—the issuance of an ITP—on the human environment. The EIS will also include analysis of a reasonable range of alternatives to the proposed action. Alternatives considered in the EIS may include, but are not limited to, variations in the permit term or permit structure; the quantity of take permitted; the amount, location, and/or type of conservation, monitoring, or mitigation provided in the O&G HCP; the scope of Covered Activities; or a combination of these. Additionally, a No Action Alternative will be evaluated in the EIS. The No Action Alternative provides a baseline for comparing the effects of the proposed action and other action alternatives considered in the EIS.

The first formal step in the NEPA process is the scoping phase. The primary purpose of the scoping process is to provide the public, organizations, and agencies an opportunity to assist in developing the scope of the EIS analysis by identifying important issues and alternatives related to the proposed action that should be considered in the NEPA document.

This report summarizes comments, feedback, and input received from the public, nongovernmental and other organizations, and agencies during the 30-day scoping period for the EIS. The scoping period for this effort began November 25, 2016 and closed on December 27, 2016.

Chapter 2
Scoping Activities

2.1 Scoping Notification

The scoping period was announced through a Notice of Intent (NOI) published in the Federal Register, through email distribution to stakeholders and interested parties, and through a news release distributed to regional and local media. As noted above, the scoping period began November 25, 2016 and closed on December 27, 2016.

2.1.1 Notice of Intent

The Service published an NOI in the Federal Register (www.regulations.gov) on November 25, 2016 (81 FR 85250). The NOI provides background information on the proposed action, the HCP, ESA, and NEPA processes, as well as information on how to participate in the EIS scoping process. A copy of the NOI is provided in Appendix A.

2.1.2 News Release

A news release announcing the scoping phase of the EIS, the dates and locations of public scoping meetings and the online public scoping meeting was distributed to regional and local media on November 28, 2016. Additionally, the news release was posted on the project website and on the Service's West Virginia and Pennsylvania Field Office websites. A copy of the news release and the list of media outlets is provided in Appendix A.

2.1.3 Stakeholder Notification

A mailing list of EIS stakeholders was developed in support of the EIS scoping and public notice process. A total of 69 contacts representing state and federal agencies were included on the mailing list when the scoping process was initiated. The stakeholders were notified via electronic mail from the project email address (OG_HCP_EIS@fws.gov); this project email address was also provided to the public in the NOI and on the project website in the event anyone additional requested to be added to the mailing list. The stakeholders were notified regarding the intent to prepare an EIS and the scoping period. A copy of the stakeholder email letter distributed during the scoping period is included in Appendix A. The Service also conducts outreach to elected officials throughout the NEPA process.

2.1.4 Tribal Notification

There are no federally recognized Native American tribes within the three-state plan area of Ohio, Pennsylvania and West Virginia. However, there are a number of tribes that have claimed cultural heritage to some areas within the three states. As such, the Service has contacted those tribes based on contact information gathered from past coordination and communications on other projects. The notification correspondence and list of tribal contacts are included in Appendix A.

2.1.5 Project Website

A project-specific website, https://www.fws.gov/northeast/ecologicalservices/hcp/oghcp.html, was developed by the Service as an additional means of communicating with the public and providing project updates as the EIS is developed. The project website includes a brief overview of the HCP and EIS and links to project materials, including the NOI, news release, and scoping materials. The project website also includes information on both the in-person and online scoping meetings, discussed in Section 2.2, as well as Service contact information. The project website link was included in the NOI, news release, and notification letters.

2.2 Public Scoping Meetings

Five public scoping meetings were held throughout the Plan Area in December 2016. The dates and locations of meetings are listed below.

Date and Time	Facility and Address
Monday 12/12/2016 5-7pm	Chartiers Township Community Center Banquet Room 2013 Community Center Drive Houston, PA 15342
Tuesday 12/13/2016 5-7pm	Southgate Hotel Banquet Rooms 1 and 2 2248 Southgate Parkway Cambridge, OH 43725
Wednesday 12/14/2016 5-7pm	Beni Kedem Temple Ballroom 100 Quarrier Street Charleston, WV 25301
Thursday 12/15/2016 5-7pm	Village Square Conference Center Ballroom A Rt. 19 South/1489 Milford St. Clarksburg, WV 26301
Friday 12/16/2016 5-7pm	Genetti Hotel Washington Room 200 West Fourth Street

The primary purpose of the scoping meetings was to provide information to the public regarding the anticipated ITP application, draft HCP, and the Service's permitting process and associated environmental review and to solicit suggestions and information on the scope of issues and alternatives for the Service to consider when drafting the EIS. The meetings also provided an opportunity for the public to ask questions regarding the NEPA process and the proposed HCP.

Each meeting started and ended as an open house, with a brief presentation on the proposed HCP and NEPA process provided by representatives of the Service and the HCP contractor (Western

Ecosystems Technology, Inc. [WEST]) about 1 hour into each scoping meeting. A series of display boards were provided at each meeting describing ESA and Incidental Take Permits; the HCP Purpose and Need; the HCP Plan Area and Covered Activities; the Range of Covered Species within the Plan Area; Environmental Overview and Issues; and the NEPA/Section 10 Environmental Overview and Review Process Timeline. Available handouts included a Frequently Asked Questions document and a Keys to Making Effective Comments document. Comment forms (hard copy and electronic) were also available at each scoping meeting to aid attendees in providing scoping comments. Attendees who registered at the meetings were also added to the project mailing list.

The scoping meetings were attended by a total of 136 participants including individual citizens, state and federal agency representatives, stakeholder organizations, and the media. The number of participants at each meeting is summarized below.

Date	**December 12, 2016**	**December 13, 2016**	**December 14, 2016**	**December 15, 2016**	**December 16, 2016**
City	Houston, PA	Cambridge, OH	Charleston, WV	Clarksburg, WV	Williamsport, PA
Location	Chartiers Township Community Center	Southgate Hotel	Beni Kedem Shriners Temple	Village Square Conference Center	Genetti Hotel
Total Attendance	15	13	6	9	93

Additionally, an online webinar was held on December 20, 2016 at 6:00 p.m. (Eastern Standard Time) to allow for maximum participation in the scoping process. Webinar participants were able to view and listen to the scoping meeting presentation as well as ask questions via the webinar chat box, to which the Service and HCP contractor responded. The webinar was also available by conference call. A total of 71 individuals registered for the online scoping meeting, with 41 individuals participating on December 20, 2016. A copy of the online scoping meeting presentation is provided in Appendix B and represents the same presentation that was offered at the scoping meetings during the week of December 12, 2016.

For purposes of recordkeeping and documentation for the administrative record, scoping comments were required to be submitted in writing. Scoping comments were submitted in hard copy format at the meeting venues, via regular mail, electronically on regulations.gov, or electronically at the meeting venues. In addition to scoping comments, the Service also accepted questions from the attendees. A composite list of questions and answers from the public scoping meetings and online scoping meeting are posted on the project website and also included in Appendix B.

Chapter 3
Summary of Comments Received

During the scoping period, 1,120 written comments were received from the public, nongovernmental organizations, stakeholder groups, and state and federal agencies. Comments were received via hard copy comment forms, letters, email, and online at Regulations.gov (Docket Number FWS–R5–ES–2016–0135). In addition, Ohio Environmental Council submitted along with its public comment a petition containing 2,365 signatories, some of whom made additional comments. This section of the report provides a summary of the written comments received, organized by topic.

Appendix C provides a list of commenters who submitted comments during the scoping period. Appendix D contains a copy of all written comments received during the scoping period.

The purpose of this scoping report is to summarize the scoping comments for consideration in preparation of the EIS. However, many comments were received that focus on the HCP. Because the HCP defines the ITP permit application as well as the basis for the Service's federal action that is evaluated in the EIS, comments specific to the HCP are also included in this scoping report in Section 3.1, followed by the EIS scoping comments in Section 3.2.

3.1 O&G HCP-Related Comments

3.1.1 Plan Area and Covered Lands

Several commenters had suggestions regarding the Plan Area and Covered Lands for the O&G HCP:

- The O&G HCP Plan Area is too large and not specific enough; the HCP should include specific details about the Plan Area to improve the analysis of impacts.
- The O&G HCP should identify non-development zones (e.g., all federal lands, areas near known hibernacula).
- One commenter suggested Covered Lands be limited to areas in which the five bat species are present during the year.
- One commenter stated it is unclear how state-owned lands will be addressed in the HCP and EIS.

3.1.2 Covered Species

Several commenters had suggestions regarding species to be included or excluded from the O&G HCP, and/or methodologies that should be used to consider potential impacts on Covered Species in the O&G HCP:

- Eastern small-footed bats, red bats, silver haired bats, Virginia big eared bats, red bats, and hoary bats should also be included as Covered Species in the O&G HCP.
- The O&G HCP should cover all federally listed species that currently use or that may occur within the Plan Area. One commenter noted all 45 of the listed species identified

on the Service's website should be included. Another commenter indicated there are 75 listed species in the Plan Area.

- The Service should consider including aquatic species in the HCP.
- Several commenters suggested the O&G HCP should only cover one species at a time. All species should be considered separately.
- One commenter recommended a mechanism be included to account for additional and/or newly imperiled species to be added as a part of O&G HCP.
- One commenter suggested using maximum entropy modeling (MAXENT) to provide a cost effective means of determining probability of species presence at the landscape level.
- One commenter suggested using ecological niche modeling during the project planning phase to determine areas that may have the highest or lowest impacts.
- One commenter requests the Service put a cap on the amount of potential take for each of the Covered Species.
- The HCP should identify how data gaps will be addressed. The HCP needs to identify what data will be used and how the data will be updated in the HCP.

3.1.3 Mitigation Measures

Commenters suggested mitigation measures, adaptive management strategies, or monitoring protocols for consideration in the HCP; some of these mitigation measures may also be addressed in the EIS. These comments are summarized in the following sections.

- The Service should require strategic habitat acquisition to consolidate ownership and connectivity and have those lands managed by the Service.
- The Service should require funding for ecological studies to monitor populations, quantify consequences, and measure benefits. One commenter recommended a fee/well pad mitigation formula. Another commenter suggested funds be set aside in advance and in escrow.
- Companies should have the option to fund white-nose syndrome (WNS) research, including funding efforts to treat/sanitize bats and their habitats to lessen the threat of WNS.
- Companies should have the option to set aside acres for preservation of habitat by designating areas not to be disturbed by well-pad or pipeline activity.
- The Service should adopt and implement best practices protocols.
- Some commenters suggested mitigation funds should be spent on protecting key habitat, not on stopping WNS, while other commenters suggested mitigation funds should be spent on researching WNS to cure or prevent the disease.
- Conservation measures should focus on avoiding, not mitigating additive sources of bat mortality.
- Impacts in one state should be mitigated in the same state near where initial impacts occur.

- Commenters suggested that prior to implementation, mitigation be reviewed by an outside agency or contractor.
- One commenter had concerns if the current scientific understanding of the Covered Species was adequate for identifying successful mitigation measures.
- The Service should require more intensive, rigorous, regular, and frequent monitoring programs for bats.
- The Service should require better notification to the public and conservation groups of planned impacted areas to boost compliance monitoring.
- Seismic exploration, including thumper trucks, and other blasting activities should be curtailed during hibernation and brooding periods of the listed bat species.
- Proponents should provide funding for WNS monitoring, for research into treatments, and for actual treatment where it could be effective.
- Roads, drill-pad construction, and other land clearing must avoid critical brooding and roosting habitat for the listed bat species where practicable.
- One commenter suggested that welded angle iron cave gates not be used for mitigation due to potential adverse impacts to Indiana bat populations.
- The HCP should include remediation of habitat loss in the form of additional artificial structures (bat boxes) to be placed and maintained for the entire permit term, plus additional time to allow habitat regeneration.
- The Service should require "closed systems" for storing wastewater instead of wastewater ponds and prohibit netting, to protect the ESA-listed bats. If applicable an alternate approach may include a closed-loop drilling system.
- The Service should require maintenance of densely vegetated forest for foraging and preservation of large, intact forest tracts in areas near historic or current hibernacula and summer-roosting habitat.
- The Service should require buffers of at least 1.5 miles for maternity roost trees and 5 miles for hibernacula. These areas must be permanently protected, not only seasonally, such that maternity roost trees are not cut down during winter months.
- The Service should require pre-project surveys for maternity roost trees and hibernacula, if an area has not been surveyed specifically for affected bat species in the past 3 years.
- The Service should require analysis and pre-planning for sudden, catastrophic events, such as toxic spills and mass streambank failure. Applicants should also be required to calculate the likelihood of lesser crises, such as unanticipated pipeline failures at stream crossings, and assess the risk to bats in the overall project area.
- If and when projects are sited, the Service should notify local conservation groups in the affected area and ensure their active participation, including acting as compliance monitors for the projects. In addition, the Service should require Applicants to include funding for technical experts to assist the public.

- The Service should identify the circumstances that, if they were to occur within the covered geographic area, would require Applicants and the Service to determine if additional conservation and mitigation measures are necessary, including factors such as climate change, droughts, floods, fires, tornadoes, disease, invasive species, species range expansion/contraction, species listing/delisting, and gas pipeline leaks and explosions (e.g., caused by human error, corrosion, terrorism, earthquakes, or other threats).
- The Service should require co-location of pipeline infrastructure in existing pipeline or road right-of-ways to avoid the need for tree removal.
- The HCP should address if third party mitigation can be administered and how it will be administered for impacts of state-owned properties.
- One commenter suggested not allowing oil and gas exploration without strict restrictions that set specific time limits and regulations for how exploration can be conducted.
- Because seasonal restrictions on Covered Activities at or near known habitat sites may be insufficient to already protect already imperiled bats, these activities may need to be reduced in intensity or area, or may need to be prohibited completely. These stricter protections may include the reduction of forest acreage that Applicants can clear, or an outright prohibition of logging of any sort, at any time of year, in known or suspected maternity roost areas, or other summer and fall habitats.

3.1.4 Adaptive Management Strategies

- The Service should include adaptive management plans in the HCP to account for changes that occur throughout the permit term.
- The Service should consider how advancements in acoustic and other sampling technologies that may be developed over the permit period will be studied during the permit term to adaptively manage for new information.
- The Service should consider how changes in technology for oil and gas extraction would be covered by the ITP.

3.1.5 Monitoring

- Monitoring should be comprehensive, frequent, and aggressive with practices being demonstrated to be effective. Compliance with the HCP should be closely monitored.
- Develop monitoring protocols for detecting bats at very low densities. Monitoring may need to be intensified, or conducted over a longer period of time, to detect the rare individuals that remain.
- The Service should re-evaluate the effectiveness monitoring every two to three years.
- The Service should consider a long-term acoustic monitoring program to collect baseline data that could be compared over the permit term.
- Monitoring should account for difficulties in detecting fatalities.
- Monitoring should be done by a non-government and non-profit organization established to maintain review of company/site records for compliance. The Coalition should not self-monitor.

- Pits and ponds should be monitored daily for wildlife and/or fatalities.

3.1.6 General Comments

Multiple commenters provided general comments about the proposed O&G HCP, including the scope of Covered Activities, proposed conservation strategy and monitoring requirements, and how the O&G HCP should apply to oil and gas development activities within the Plan Area. A summary of these comments is provided below.

- The nine companies that make up the Coalition should obtain individual ITPs.
- The HCP should include specific provisions for ensuring the ITP and HCP are enforced and functioning despite mergers, acquisitions, bankruptcies, and failures for the companies that make up the Coalition.
- The HCP should identify penalties and repercussions in the event a company is in violation of the ITP.
- One commenter suggested enforcement of the permit terms should be completed by individuals not employed at the companies of the Coalition.
- One commenter had concerns that the permit could be amended to allow take of other species.
- The HCP and NEPA document should address how market fluctuations will influence development, especially given the long permit term proposed.
- The Service should include 10 year reviews on status of Covered Species, successes/failures of the HCP, and opportunities for independent assessment of monitoring and other data, as well as public comment.
- The Service should require surveys to identify important habitat features prior to any activities occurring at a site.
- The Service should require all tree clearing activities occur outside of maternity season and known maternity trees not be removed. Drilling activities near known hibernacula should be avoided.
- The Service should consider relocating bats to reduce impacts.
- One commenter was concerned with the Covered Activities using the language 'including, but not limited to' implying everything related to oil and gas development will be included.
- The covered activity model assumptions should be outlined in the HCP.
- Commenters suggested the habitat models should include projections for climate change.
- The Service should focus research on population models (time series change analyses and survival analyses to assess causes of mortality), vulnerability assessments to predict risks, and spatial analyses including current habitat use and predictive models to assess future impacts.
- The Service should disclose in the O&G HCP the total estimated loss of acreage.

- Coalition partners should be required to provide the following: accurate projections for all Covered Activities and their expected locations in each state for the 50-year permit term requested; an independent inventory of all existing and potential ranges of targeted species in the three state plan area and adjacent states; analysis of potential range and habitat changes due to climate change and impacts; an independent assessment of the current environmental and economic benefits of targeted species; demonstration that no covered activity would jeopardize recovery and survival of bats; specific plans including independent monitors to ensure compliance and mitigation; certification plans and requirements for all personnel performing Covered Activities; and specific measures including funding to ensure that coalition companies and not the public will pay for failure to comply.
- One commenter suggested that take should be determined in relation to both covered activity and over time. Recommended that there should be safeguards to prevent all or most of any type of impact that would be detrimental to bats to occur in a short period of time or within an area of high value to any one bat species.
- The Service should require all chemicals used during upstream and midstream activities be disclosed.
- The Service should require co-location of upstream and midstream activities to minimize forest fragmentation.
- One commenter suggested oil and gas activities should occur in areas that will not harm bats or public health.
- The HCP should indicate the level of education and training employees would need to have and the standards that they will be assessed in order to more fully attain the vision and purpose of the HCP. The HCP should recognize technological and environmental changes that would occur over a 50-year permit term and include flexibility to ensure equitable and effective implementation.
- The HCP should include current or anticipated scientific advances that would allow for mitigation of environmental or direct damage impacts on residing or migrating endangered species.

3.2 NEPA-Related Comments

Comments specific to the NEPA environmental analysis were provided on the approach to completing the EIS analysis; the range of alternatives to be considered in the EIS; specific resource topics that should be addressed in the EIS; and mitigation measures, adaptive management, and monitoring strategies.

3.2.1 NEPA Approach Considerations

Several commenters provided input on the approach used to complete the EIS analysis.

- The EIS must describe existing conditions within the Plan Area. Existing conditions should be the baseline for comparing alternatives and completing the effects analysis.
- Several commenters requested an EIS be prepared, not an EA.

- A few state agencies requested to be involved in the EIS process to provide expertise.
- The EIS should clearly define the project purpose and need.
- One commenter recommended that scoping include a specific, focused consultation to develop two or more alternate review pathways for the energy development companies to select from and follow in order to make sure that environmental and cultural resources are considered during the streamlined review process envisioned as part of the proposed EIS.

3.2.2 Alternatives

As described in the NOI, the EIS will consider a reasonable range of alternatives to the proposed action. Multiple commenters provided suggestions regarding the range of alternatives to be analyzed in the EIS. As summarized below, these comments generally included suggestions for reduced permit terms or a smaller Plan Area.

- The EIS should consider an alternative with a shorter permit term (e.g., 1, 1.5, 5, 10, 15, 20, and 30 years).
- The Service should consider a smaller Plan Area to account for environmental effects and management techniques that may vary with geographic location.
- Requests were made to include alternatives that do not allow the taking of bats.
- The EIS should consider an alternative that requires mitigation measures that produce demonstrably positive results over an area at least as large as the area impacted by activities.
- The EIS should analyze an environmentally preferred alternative which considers downsizing proposed projects and re-locating sections or components of projects.
- Requests for the Service to select the No Action Alternative.
- The Service should consider how advances in technology, science, and industry practices could lead to more effective conservation and how these advances would be accounted for under different alternatives.

3.2.3 Resource Areas of Concern

The EIS will describe the direct, indirect, and cumulative impacts of all alternatives on a variety of resource areas. The EIS will also include a summary description of the existing regulatory framework specific to each resource area, including any required permits from federal, state, and local jurisdictions prior to Covered Activities being implemented.

Comments received during scoping were primarily focused on potential impacts to biological resources, as summarized below.

3.2.3.1 Biological Resources

- The Service should analyze the direct, indirect, and cumulative impacts of the proposed action on endangered, threatened, and Covered Species, and their communities or habitats.

- The EIS should disclose impacts to state-listed endangered and threatened species.
- The EIS should identify the projections for viability and health of the bat populations.
- The EIS should consider the impacts of reduced bat populations with respect to agriculture (e.g., reduced insect control and reduced pollination).
- The EIS should consider the impacts of reduced bat populations with respect to public health (e.g., increase in mosquito populations and potential for spread of diseases such as Zika, West Nile Virus, and Malaria). The EIS should consider cumulative impacts of habitat loss and fragmentation.
- EIS should disclose complete list of habitat threats as well as threats bat populations will face from land, air, water, light, and noise pollution from each step of oil and gas exploration.
- The EIS should assess how increased temperatures and shifting climate patterns will impact breeding, feeding, and hibernacula.
- The EIS should specify activities expected to kill bats, to what extent, in what locations, and the number of bats projected to be killed.
- The EIS should analyze habitat loss, assuming not only the well pad footprint and disturbance, but also including a 30-acre area for impacts of habitat loss because the impacts extend beyond the direct loss of acreage cleared.
- The EIS should consider the effects of habitat loss and fragmentation on Covered Species and other wildlife, including potential impacts to reproductive output from habitat changes.
- The EIS should consider the short and long-term impacts of oil and gas development, including fracking on threatened and endangered species, water, fish, wildlife, and humans.
- The EIS should consider impacts to other wildlife species and habitats including habitat fragmentation, reduced population size, increased competition, reduced survival rates, water source contamination, and altered phenologies).
- The EIS should consider impacts to songbirds and their habitat (disturbance and fragmentation).
- The EIS should consider other neighboring and overlapping HCPs and ITPs (e.g., NiSource) issued or under review in its analysis and the cumulative impact to threatened and endangered species.
- Cumulative impacts must include past, present, and future activities including logging, other forest management activities, highways and secondary roads, electric transmission and powerline ROW, and other industrial activities that contribute to habitat loss.
- The Service should focus research on population models (time series change analyses and survival analyses to assess causes of mortality), vulnerability assessments to predict risks, and spatial analyses including current habitat use and predictive models to assess future impacts.
- The EIS should consider the combined effect on bats from oil and gas development and WNS.

- The EIS analysis should incorporate the latest data on WNS and current population trends for all Covered Species.
- Many commenters identified sources of information the Service should review or use during their analysis. Some documents were referenced as evidence for the commenter's opposition to the HCP and ITP. A few commenters also suggested specific people the Service should contact for information.

3.2.3.2 Other Resource Topics

- The EIS should consider impacts on agriculture from reductions in bat populations, including potential economic effects associated with replacing pest control services.
- The EIS should consider impacts on pollution due to oil and gas development.
- Several commenters had concerns for public health and safety due to potential earthquakes as a result of oil and gas development.
- The EIS should include analysis for air quality, invasive species, noise and vibration levels, hazardous waste, karst terrain, visual impacts (light), and water quality.
- The EIS should evaluate the impacts of these oil and gas projects on streams and watersheds.
- The EIS should consider impacts to exceptional value waters and water contamination.
- The EIS should consider impacts including water withdrawal and depletion, toxic waste generation and disposal. Recommend regular inspections of wells and ancillary structures during all stages of development to ensure groundwater or atmospheric leaks are identified and remediated quickly.
- The EIS should consider the impacts of climate change on Covered Species.
- The EIS should consider impacts on economics including potential decreases in per capita income, increased crime, and lower educational attainment, and recreation and tourism.
- The EIS should consider the short and long-term impacts of oil and gas development, including fracking, on climate change and global warming.
- The EIS should consider the impacts of oil spills.
- The cumulative analysis should consider oil and gas projects under review on federal lands (e.g., Mountain Valley, Atlantic Coast Pipeline).
- One commenter suggested using the U.S. Environmental Protection Agency environmental justice mapping and screening tool called EJSCREEN.
- Commenters expressed concerns that the locations of the oil and gas activities are unknown.
- Concern that bat species have already been decimated by WNS and issuing the ITP will result in extinction of these species. Other concerns that bats have been impacted by wind turbines and habitat loss.
- One commenter recommended a study on the range of effects that energy development would have on cultural resources which would include: different types of cultural

resources, different kinds of effects, measures to avoid, reduce, or minimize adverse effects, different kinds of mitigation measures and when and where they can be applied, and the role of the federal agency in making sure that the appropriate measures are selected and carried out.

- Concerns about how only a small portion of the Plan Area in Ohio has been surveyed systematically to identify historic properties and archeological resources, and that many potential archaeological sites within the three state Plan Area may not have been systematically and rigorously evaluated for inclusion in the National Register.
- Recommendation that when historic properties are considered early in the project planning process that project development often proceeds with typically only minor adjustments and cultural resources are preserved and protected.
- Recommend minimizing the number of ponds/pits.

3.2.4 Mitigation Measures

Commenters suggested mitigation measures, adaptive management strategies, or monitoring protocols for consideration in the EIS. These comments are summarized in the following sections.

- Commenters suggested mitigation measures may be required for aquatic and terrestrial resources, air quality, environmental justice communities, cultural resources, and biological resources.
- One commenter suggested developing a waterbody crossing plan as part of the EIS that includes specific mitigation such as maintaining no disturbance buffers, in-water timing restrictions, and monitoring provisions to ensure effectiveness of mitigation.
- One commenter suggested including stormwater pollution control and mitigation measures in the EIS.

3.3 Statements of Opposition or Support

Commenters expressed opposition or support for the proposed action.

- Several commenters expressed support of the ITP because development of energy resources and protection of wildlife are not mutually exclusive. They supported the ITP because it would also fund additional research, habitat creation, and conservation of the bat species.
- Many commenters stated that issuance of an ITP by the Service is in conflict with their mandate to protect species under the ESA.
- Many commenters suggested the Service should not consider issuing permits for ongoing take associated with oil and gas operations due to the already low bat population numbers.

3.4 Public Involvement

Several commenters provided specific suggestions on opportunities for the public to participate in the NEPA or ESA processes.

- Several commenters indicated the scoping period was too short, especially because the comment period included holidays.
- Several commenters indicated the scoping period should be extended; one commenter suggested the scoping period should have been 45 days. Another commenter requested an extension of 60 days to the scoping period; one commenter requested a 90-day extension. One commenter requested there be public scoping meetings.
- One commenter requested multiple, lengthy public comment periods for the EIS.
- One commenter indicated that because only modest information about the HCP was available at the scoping meeting, it was difficult to comment.
- One commenter had concerns that due to the 50-year permit term public involvement would be limited and as details regarding specific projects emerged, the public would not be able to comment.
- Several commenters indicated that granting individual permits would allow or more public involvement and comment.
- Several commenters indicated there was not enough notification to the public about the project. One commenter indicated the public scoping meeting in Williamsport was not well publicized.

3.5 Out-of-Scope Comments

Several commenters provided comments not specific to the NEPA process or scope of the O&G HCP. These comments, and a brief explanation for why they are considered outside the scope of the proposed action, are provided below.

- Commenters suggested moving toward sustainable or renewable energy (e.g., solar, wind), rather than coal and oil and gas. Commenters suggested prohibiting oil and gas activities. Because the ITP application is for oil and gas activities, the Service needs to respond directly to this request and cannot suggest alternate types of energy development. This comment is considered to be outside the scope of this EIS.
- Several commenters suggested the Service compile and include a discussion of all state and federal violations the companies in the Coalition have accumulated in all three states to assess if the companies will honor the terms of the ITP. The Service's federal action to evaluate the potential impacts associated with issuance of an ITP for five bat species is specifically related to impacts from future oil and gas activities and not past activities. The existing conditions of these five bat species will be addressed in the EIS; however, past individual project violations are considered to be outside the scope of this EIS.
- One commenter suggested developing a national energy policy. The Service is responsible for threatened and endangered species and does not have the authority to develop national policies pertaining to energy development.

- One commenter stated the Service must ensure that the O&G HCP does not impact the ability of public and private forest owners to manage forestland unless these activities are purchased by the companies for the entire length of the HCP or otherwise restricted by federal threatened and endangered species regulations. Property acquisition for purposes of covered activities is considered to be outside the scope of this EIS.

Chapter 4
Next Steps in Planning Process

The Service will consider all of the public scoping comments in its development of the EIS, including consideration of comments specific to alternatives. The Service will develop a reasonable range of alternatives to the proposed action which will also be carried forward for full analysis in the EIS. For each of the reasonable alternatives carried forward for full analysis, the EIS will identify potentially affected resources and assess potential impacts on each of those resources. If needed, measures to mitigate resource impacts will be included.

Following completion of the environmental review process, the Service will publish a Notice of Availability and a request for comments on the Draft EIS. The Draft O&G HCP will be released for public review and comment concurrent with the Draft EIS. A comment period of no less than 60 days will follow the publication of the Draft EIS and may include meetings to accommodate public participation. The Service will consider all comments on the Draft EIS in the preparation of the Final EIS, which will include responses to all substantive comments received. Following the comment period, the Draft EIS may be modified based on the substantive comments received.

When complete, the Final EIS and responses to substantive comments will be made available to the public for a minimum 30-day review period. A Record of Decision will be issued by the Service following the review period of the Final EIS.

Appendix A

Notification Materials

Appendix B

Scoping Meeting Materials

Appendix C

List of Commenters

Appendix D

Scoping Comments